smartkat®

BENUTZERHANDBUCH
USER MANUAL
사용자 메뉴얼
MANUALE D´USO

Edition 03/09

smartkat USER MANUAL

Congratulations on the purchase of your smartkat – welcome to the club.

Before you start using your **smartkat**, there are some important things you should know about this newly developed sailing boat. The **smartkat** has been designed to provide you with many hours of fun and enjoyment, giving new meaning to the term 'fun sailing'. In this manual we have tried to use as few technical sailing terms as possible so that beginners and owners without previous sailing experience can assemble and take the **smartkat** into operation easily. Our apologies if the simp-lified explanations disturb our experienced sailing enthusiasts!

This user manual is an important document and it will help you to get the most out of your **smartkat**.
The operation and use of the **smartkat** always takes place at your own risk and under your own responsibility.
This user manual also includes a warranty card that must be filled out by the selling agent and forwarded to your local **smartkat** importer.

Your copy of the warranty card must be presented if warranty be filled out by the selling agent and forwarded to your local **smartkat** importer.

Your copy of the warranty card must be presented if warranty repairs are necessary in order to verify the validity of the warranty. If the warranty card is not available, then other proof of the validity of the warranty will be required.

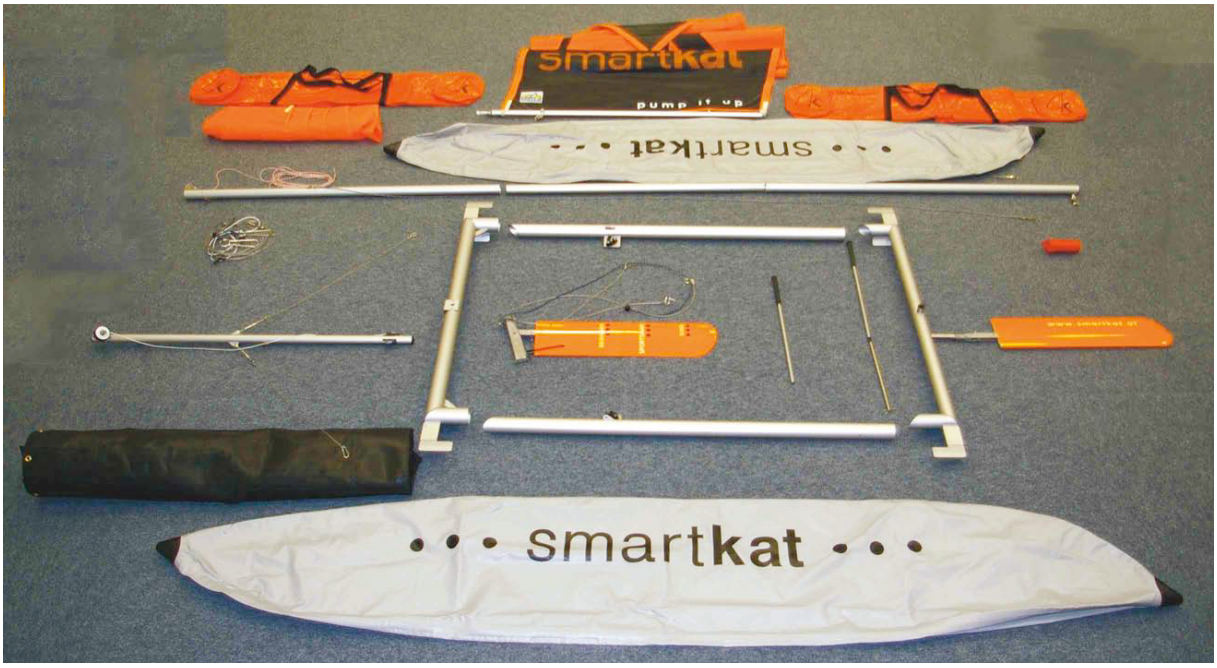
A spare part or accessory does not have an accompanying warranty card and, in such cases, please present a copy of your purchase receipt.

WARNING

To prevent accidents, read, understand and always strictly follow all safety rules and obey all the laws and coastguard regulations applying to the area in which you are sailing your smartkat. Follow the recommendations in this manual. You personally are always responsible for your actions.
Failure to follow the instructions in this manual will automatically invalidate any warranty claims. Always wear a lifejacket which complies with up-to-date regulations. Even though the smartkat can be handled by sailing beginners after just a short training period, the smartkat should never be sailed or taken into operation without comprehensive sailing knowledge and experience. Stick rigorously to the laws applying in the areas you are travelling in.
smartkat will not be held responsible in any way for damage of any kind which results from the disregard of laws or which is caused by operating errors or lack of sailing knowledge or competence.

BEWARE OF OFFSHORE WINDS AND CURRENTS

SMARTKAT – SAILING CATAMARAN SPECIFICATIONS:			
overall length:	4,30 m	Mast height:	4,80 m
overall width:	2,20 m	Sail area:	9,90 m^2
Weight:	42,00 kg	Depth:	0,75 m
Person capacity:	4 / 2	Max. engine HP:	3 HP
Weight capacity:	320,00 kg 140,00 kg	Classification:	D C
Minimum working pressure in the hulls 0,3 bar **Maximum pressure 0,35 bar**			



SMARTKAT – STANDARTEQUIPMENT:		
2 inflatable hulls	1 mast	1 main sail
1 trampoline	1 tiller	1 jib *)
1 rudder	1 main beam	1 repair set for the hulls
1 centerboard	1 bowsprit	2 carrying bags
All necessary ropes and clamps for using the boat		
***) jib respectively in performance version**		

GENERAL RECOMMENDATIONS

Before you begin to inflate the hulls, lay out your smartkat onto an area that is clean and free of sharp objects and debris.

1. Inflate your **smartkat** using a general purpose air pump of the type you would use for inflating air beds, swimming toys or small inflatable boats. Naturally you can also use an electric air pump. How-ever, this must be adjusted so that it switches off automatically when the pressure reaches 0.3 bar. Because pumps of this type cannot usually achieve 0.3 bar, use a hand or foot pump to raise the pressure until 0.3 bar is actually achieved in the hulls. Check this using the manometer supplied.

DO NOT USE A COMPRESSOR OR OTHER TYPE OF HIGH PRESSURE PUMP UNDER ANY CIRCUMSTANCES. IF YOU DO, YOU CAN DAMAGE THE HULLS.

Your smartkat is designed for an operating pressure of 0.3 bar.

If they are exposed to sunlight for any length of time, please check the pressure and release air pressure as necessary.

CAUTION

Any use of a high pressure air pump or compressor, independent of the type, or exceeding the operating pressure, will automatically invalidate all warranties.

2. Each of the hulls is equipped with a safety valve.

3. Please note: the safety valve is a two-way safety valve and consists of two main parts. The inner part with the threaded valve (safety screw) and a covering cap. To open the valve fully, press the safety screw inwards and turn it clockwise to the right until you feel the stop. To pump up the hull, push the appropriate pump hose nozzle into the opened valve. To close the valve, remove the pump hose and turn the safety screw anticlockwise to the left until the screw slots in. After this you can pump further against the closed valve with the hand pump until you achieve the operating pressure of 0.3 bar – check this with the manometer supplied. To release air from the hulls, open the valve cap, press the safety screw inwards firmly and turn this clockwise to the right until it slots in. The round covering cap makes the valve absolutely airtight as long as it is screwed onto the valve tightly. The hulls should never be fully pumped up until the **smartkat** is completely assembled.

4. You will find that the smartkat is much easier to assemble if you initially inflate the hulls to about 30% of their volume. This is particular recommended when assembling the **smartkat** for the first time **(01)**.

5. Only pump up the hulls after completely assembling the trampoline – see 'Section 6d' – and use the manometer supplied to check that you achieve the final pressure of 0.3 bar.

6. To completely assemble the **smartkat**, please read and carry out exactly the following instructions.

a) Unpack the two carrying bags and place the parts of the **smartkat** onto a free area that is clean and free of pointed or sharp stones and objects, laying the individual parts where they will be close to hand.

b) Ensure that all cables, ropes and wires are not tangled and are free of knots or loops and not wrapped around any **smartkat** parts.

c) Unfold the two hulls and place them parallel to each other at a distance of about 2 metres apart.

d) FIRST ASSEMBLY

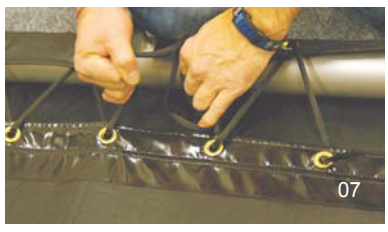
Unfold the trampoline and push the front frame tube – the front frame tube is recognised by it having a holder for the centreboard in the middle – through the front tunnel on the trampoline **(02)**. After this, push the right side tube in the same way through the right trampo-line tunnel (the left side of the trampoline is the one with the eyelets) – the side tubes can be identified because they are cut slanting at the front **(03)**. Take care that the slanting ends of the two side tubes sit properly within the front frame tube so that they are secured against twisting. These slant-cut ends belong in the corner connections of the front frame tube, in the position specially made in the front frame tube. Complete the whole frame by slotting the rear frame tube onto both side tubes **(04)**.

The rear frame tube can be identified by the round pipe in the centre through which the rudder module passes.

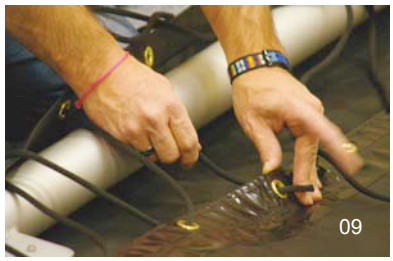
Now position the finished, assembled frame over the trampoline in such a way that the cut out round side at the front centre of the trampoline lies on the front frame part **(05)**. You can then start to attach the trampoline to the frame, passing the fixing rope through the eyelets and finally pulling it tight by using the clamp mounted on the frame **(06)**.

Please start by passing the rope through the eyelets from the inside towards the outside **(07 + 09)**. You must probably – especially with a new trampoline – repeatedly tighten the rope through the eyelets right from the beginning in order to be able to reach the clamp on the frame **(07)**.

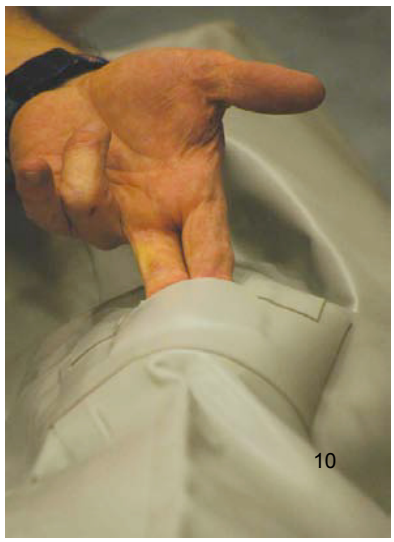
Please tension the rope evenly through all the eyelets and do not pull the rope tightly through a single eyelet. Secure the rope behind the clamp with a reef knot **(08)**.

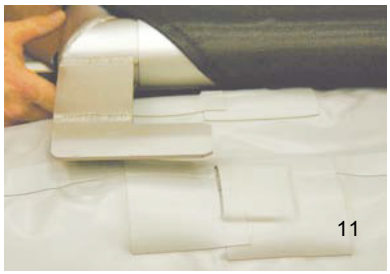


SECOND AND SUBSEQUENT ASSEMBLY
If you have taken the **smartkat** apart properly, you haven't unlaced the side frame tubes but have just loosened and perhaps unlaced the rear frame tube so that you must only slot the side frame tubes into the front frame tube and push on the rear frame tube. Now you can re-lace the trampoline rope at the rear again and pull it tight. This saves you a lot of assembling time.


09

e) After building the trampoline completely, turn it round again and slide the inside and then the outside metal feet of the frame into the pockets on the hulls. Take care that the sides of the hulls where the air valves are situated are at the back and that the air valves point inwards. Do not use force – the feet should slide easily into the pockets when you bend the pockets up a bit. When all eight feet have slid into their pockets, you can inflate the hulls fully. On new hulls, you will probably have to bend the pockets up a little. After fixing all eight feet on the hulls, pump up both hulls using the manometer supplied to check that the operating pressure of 0.3 bar is achieved **(10 - 15)** .


10


11

12

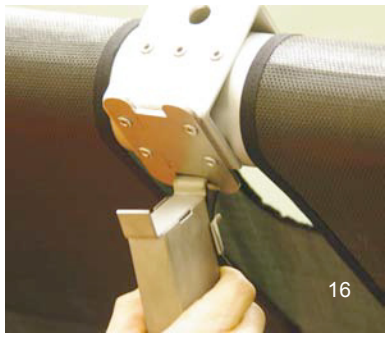
13

14

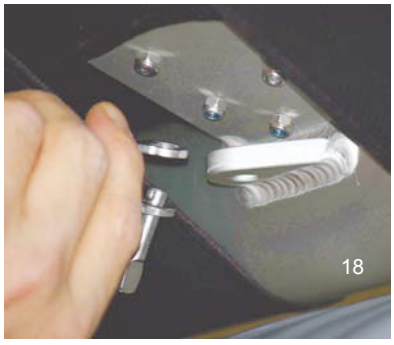
15

f) Fix the centreboard into the centreboard holder provided on the trampoline frame **(16)**. For lifting the centreboard, a reserve elastic rope and a reserve lifting rope are included **(17)**.

g) Fix the two shackles of the two side centreboard mountings into the metal plates provided on the two side frames. You can feel the shackle bolts slot automatically into place when you turn the shackle bolts clockwise to the right **(18 - 19)**.

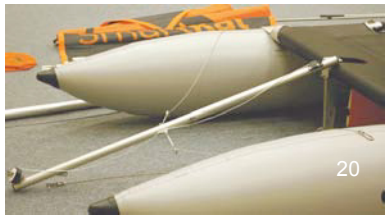

16

17


18

19

h) So that you can manipulate it easier, lay the bowsprit with its rear end on the trampoline and the front end with the headsail roller on the ground **(20).** Position the two bowsprit side fixing ropes by attaching the karabiner **(21)** and secure this in the appropriate hole in the frame plates left and right **(22).** After this, attach the front bowsprit cable using the shackle in the front, underside plate of the bowsprit **(23).** Again the shackle bolt must be turned clockwise until it snaps in. Now fix the bowsprit by slotting it loosely into the holder provided in the middle of the front frame tube **(24).** Both bowsprit side fixing ropes have to be set up when assembling for the first time, these should be tightened carefully until a light, equal tension on both sides exists. Then secure the tensioning shackles using the locking nuts. Do not use any tools to reach the tension, the force of your hand is tension enough.

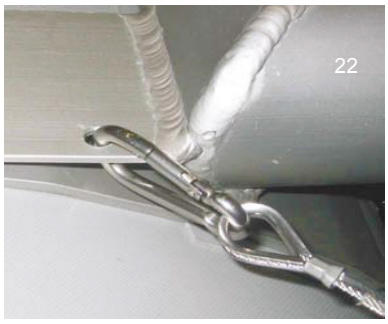

20

21

CAUTION

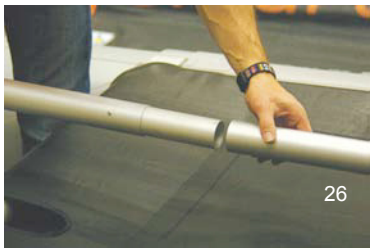
The bowsprit is not fixed yet but can still slip out of its holder **(24)**.

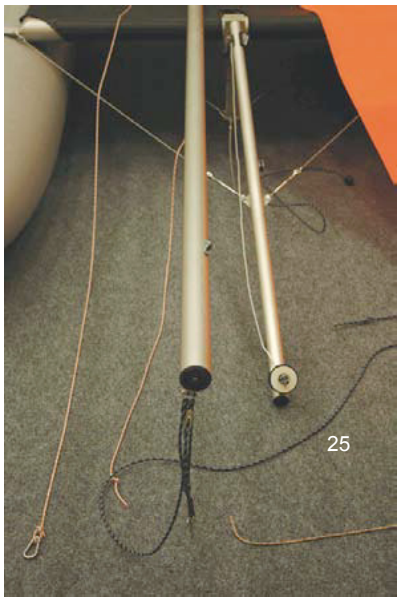
i) Now slot the three parts of the mast into each other, in such a way that the mainsheet roller block for the mainsheet rope (rope which is used to hoist the mainsheet) at the top of the mast looks backwards (towards the ground when the mast is lying down). Make sure that the ropes and cables are not twisted and can fall freely **(25 - 27)**.


22

24

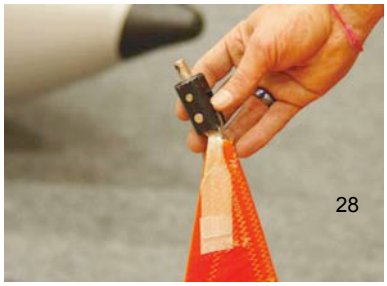
23


26


25

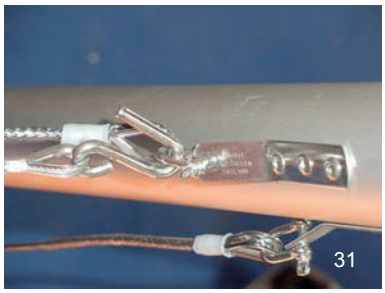
27

j) Unfold the headsail and fix the headsail with the furling fock swivel at the front side of the mast top (right at the top of the mast) **(28 - 29)**


28

29

OPTIONAL TRAPEZE KIT
If you own a trapeze kit, now hang in the wire cables with the two hooks in the screw shackles of the mast shroud **(31)**.
When the mast is erected and fixed – see point 'l' – hang in both karabiners with the elastic rope in the shackle for the left and the right shroud tensioner **(32 - 34)**.

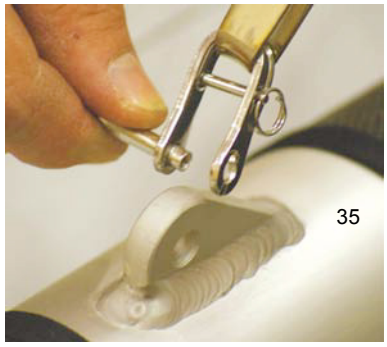

31

32

33

34

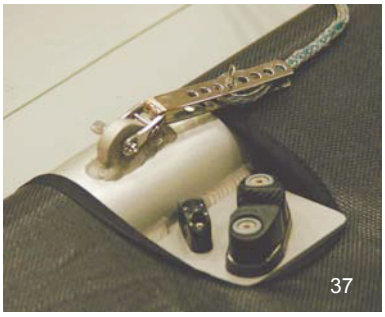
k) Satisfy yourself that the two shrouds are not obstructed or twisted (of course the same applies to the trapeze equipment as well if you have installed it) and fix them to the two plates on both sides of the frame using the shackles on the shroud ten-sioners **(35 - 37)**.


35

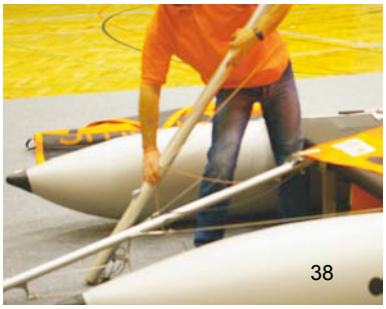
TIP

Both shroud tensioners have been adjusted and fixed in the factory. On very rigorous use of the **smartkat** it can become necessary to readjust these shroud tensioners. However, only carry out this work when the **smartkat** has been completely assembled.
Adjust the shroud tensioners that the mast does not lean even to the right or left side.
For the best performance the mast should stay in a 5 – 10 degree position to the back.

36


37

l) Stand the mast with the mast foot in the holder provided in the middle of the front frame tube. **(38 - 39)**.
Then hang the karabiner of the headsail tensioner (the rope with which the headsail is set) in the loop on the headsail and pull the headsail luff over the roller on the furler and secure the luff loosely over the clamp.


38

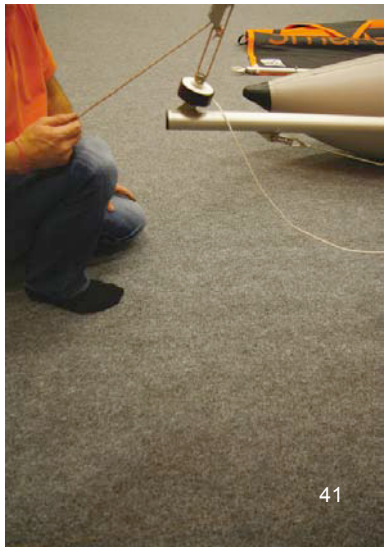
39

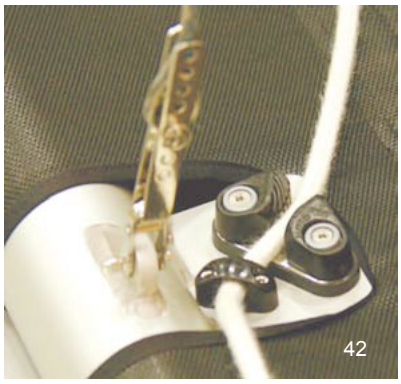
m) Now pull the luff tight through the clamp on the head sail. Pull the luff very tight – you may have to use your other hand to hold the bowsprit in a horizontal position or even press down more. Then secure the luff in the clamp provided and fix the luff line by winding it around itself under the clamp. By drawing the luff taut, the bowsprit and the mast should be completely and properly tensioned.
The smartkat is now completely tensioned and has reached its final stability **(30 und 41)**.

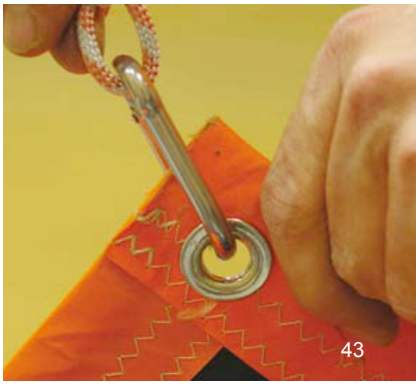
30

n) Now take the two headsail ropes through the eyelet guides and to the clamps left and right on the side frame members. **(42)**.

o) Now roll out the mainsail and fix the mainsail line shackle in the upper eyelet. **(43)**
Hoist the mainsail and, whilst doing so, use the hook-and-loop tapes to secure the sail to the mast **(44)**.
Don't secure the tapes too tightly - the sail should be able to move around the mast easily and make a good profile in the wind. Distance between mast and main sail should be 30 mm at least.
The mainsail line should also be attached to the mast with the tapes.
After finishing setting the mainsail, secure the mainsail line in the clamp provided on the lower third of the mast.


41


42

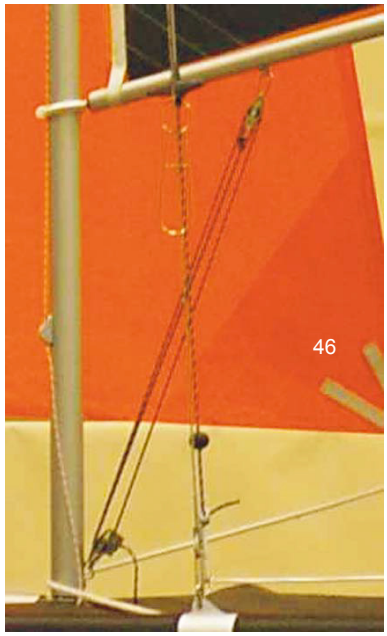

43

44

p) Mount the boom fork on the mast by full mainsail and fix the boom kicker with the karabiner in the eyelet guide provided on the boom **(45 - 47)**
Pull the boom kicker to have the mast bended. This pre bending of the mast brings a higher performance and stability of the mast. The main sail should have the same distance to the mast over the whole length.

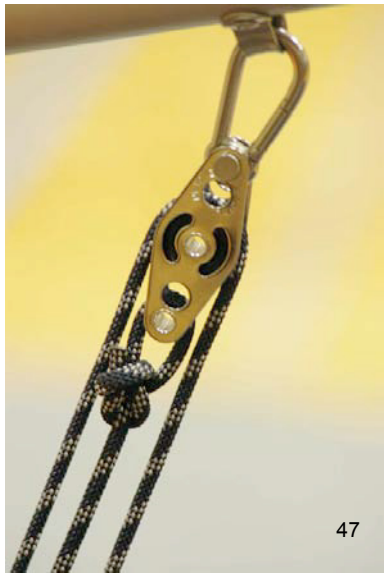
45

q) Now push the rudder from below into the holder provided on the rear frame member, guide the tiller through the rudder mounting and fix this with the spring cotter. The spring cotter is in the repair kit (packed in the orange container) **(48)**.
Position the spring cotter so that its lower end disappears into the vertical tube of the rudder and is not
visible **(49)**.


46

49

48


47

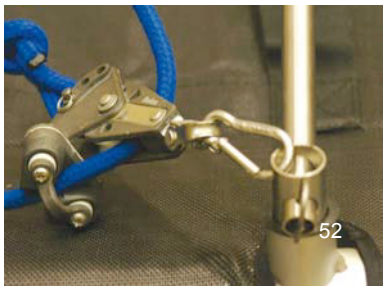
r) Optional tiller extension: if you have ordered the optionally available extension, then cut the PVC handgrip on the normal tiller off close to halfway along the end knob. Doing this reveals a thread in which you can screw the optional tiller extension **(50)**

50

s) Now fix karabiner of the mainsail line block into the hole provided on the rudder mounting **(51 - 52)**.

51

t) Place, carry or push the **smartkat** into the water, at a suitable depth of water push the rudder into a vertical position until the rudder blade clicks in, centreboard kicker towards you and secure its line in the self-releasing clamp provided on the bowsprit until the centreboard is brought into an absolutely vertical position. This positioning procedure and the secure hold of the clamp should be thoroughly checked once again. It is imperative and only permissible to use the **smartkat** when the centreboard is in an absolutely vertical position. By not maintaining the vertical position of the centreboard when sailing, serious damage can be caused to the centreboard mounting and the entire construction can break in to pieces. We make you fully aware that failing to carry out this stipulation will automatically invalidate every claim against the warranty **(53 - 55)**.

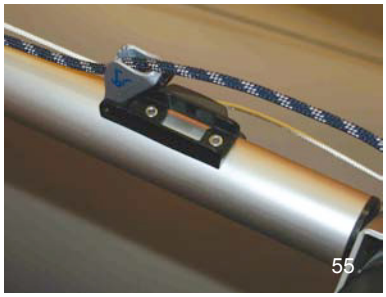

52

u) CAUTION: take good note of the applicable laws and regulations and the need for good seamanship.

ENJOY YOUR smartkat.

53

54


55

IMPORTANT

Your **smartkat** is equipped with an automatic safety lifting device for the rudder and the centreboard. If the depth of the water becomes less than 80 cm or you run against an obstacle, the rudder and the centreboard clap automatically into an upward position. CAUTION: in this position the smartkat has limited manoeuvrability.

Nevertheless we must make you aware that this installation is an emergency solution and it is your responsibility to ensure that the centreboard and the rudder never touch or run against hard or sharp shore formations or other sharp edged objects. When you want to come ashore – even in a shallow coastal area – we recommend you to release the rudder and centreboard by hand shortly before touching ground so that both are clapped up in a horizontal position **(56 - 57)**.

WARNING

Allowing the hulls to ground on stones or other hard or sharp materials will automatically render all warranties void.

DISMANTLING

To dismantle the **smartkat**, please reverse the order used for assembly. However, begin by opening the safety valves in the hulls first and letting the air escape.

MAINTENANCE AND CLEANING

Clean and check the **smartkat** and all its parts carefully after each use. To make dismantling easy, regularly clean and oil or grease the connections. After use in salt water, rinse the **smartkat** thoroughly with fresh water and satisfy yourself that all traces of sand and salt as well as salt residues have been removed before you pack the **smartkat** away for any length of time. Use a mild soapy solution for cleaning and rinse thoroughly with fresh water afterwards. Do not use any aggressive detergents or silicone-containing products. Before packing away for any length of time the **smartkat** must be completely and thoroughly dried. Packing it away in an incompletely dried condition can lead to fungal growth and spoil the appearance of your **smartkat**.

STORAGE

If you want to store your **smartkat** for any length of time, keep it in a clean and dry place that is not subject to large variations of temperature or exposure to other damaging factors, whether it is stored in the bags or not. You may store the **smartkat** completely assembled or with deflated or inflated hulls.

CAUTION

During use water can enter the trampoline or the frame tubes and the mast. This is normal and will not damage the **smartkat** in any way. Whenever you take the **smartkat** out of the water for any length of time, let the air out of the hulls and ensure that it can dry out completely and thoroughly. Neither the hulls nor the frame parts nor the sails will be negatively affected.
Damp storage can cause mildew and foul odour to develop which can then only be removed with great difficulty.

For long term storage in the sun - especially in tropical or subtropical regions, but also in the Mediterranean – you should protect your **smartkat** with a breathable cover. Whatever you do, keep your **smartkat** well protected from rodents.

REPAIR RECOMMENDATIONS FOR PVC MATERIAL

For safety's sake a repair set for the hulls is included **(58)**. Assess carefully the area to be repaired and remove anything which could contaminate the material. Clean the area to be repaired and the patching material thoroughly with a PVC cleaner and a grease solvent.
In order for the repair to be successful, the humidity level should not be more than 60% and the ambient temperature should lie between +18°C and +25°C. Avoid carrying out repairs in the rain or in direct sunlight. Check that the hull is completely deflated and that it lies on a smooth, clean and even surface.

Draw the shape of the patch exactly where it will be applied and cut a round patch out of the repair material at least 5 cm larger than the damaged area. Clean the damaged area and the repair patch very thoroughly to remove all traces of grease and other contaminants.

Apply a thin layers of glue to both the patch and the damaged area, allowing it to dry for about five to ten minutes until the glue feels dry. Apply the patch to the repair site and press it on firmly.
Using a round object such as a spoon, press out the air bubbles which may have formed under the patch, stroking from the centre to the edges with a circular motion.The repair should now be allowed to dry for at least 24 hours.

WARNING

Carry out all repairs in a well ventilated area. Avoid inhaling or swallowing glue or cleaning solvent vapours. Avoid direct contact with the skin and the eyes.
Keep all repair materials as well as glue, cleaning and glue solvents out of the reach of children. Do not smoke while working. Avoid open fire and flames.

If you have any further questions or suggestions or need other information concerning your smartkat, please contact your dealer or visit our homepage www.smartkat.at.

RECOMMENDED OPTIONAL EQUIPMENT AND SPARE PARTS

sma20	**Upgrade Kit Basic – Performance**
sma30	**Trapezkit (Without vest)**
sma31	**TILLER EXTENSIONROD**
sma40	**SUPPORT PLAT E FOR ELECTRICAL ENGINE**
sma50	**MAIN SAIL**
sma60	**FORE SAIL**
sma70	**REPLACEMENT HULL**
sma41	**ELECTRICAL ENGINE WITH BUILT IN BATTERY TRAVEL 400**
sma42	**ELECTRICAL ENGINE WITH BUILT IN BATTERY TRAVEL 800**
sma411	**REPLACEMENT BATTERY FOR TRAVEL 400**
sma421	**REPLACEMENT BATTERY FOR TRAVEL 800**
sma430	**OPARE PROPELLER FOR TRAVEL**
sma701	**ELECTRICAL PUMP**

SPARE PARTS

Generally speaking, all parts of your **smartkat** are available as spare parts (subject to any construction modifications). When ordering spare parts, please include the construction number of your **smartkat** with your order.

WARRANTY CONDITIONS

This is to certify that **smartkat** GmbH, Steyr, Austria, guarantees the product(s) indicated to be free from defects in material and workmanship under the conditions and with the limitations specified in this warranty.

This warranty does not apply in countries where a national warranty applies, or in countries where **smartkat** is not represented.

In countries where an applicable nonrestrictable law in any particular respect provides a better right to the customer than provided by this warranty, this warranty is void in that particular respect and the laws applies. All customers are recommended to make themselves acquainted with the basic content of such laws, if any.

smartkat reserves the right to make changes in the products manufactured and/or sold by **smartkat** at any time without prior notice and without incurring any obligation to make the same or similar changes in products previously manufactured or sold.

The warranty period starts on the date of delivery to the first owner/user. The date of delivery shall be noted on the warranty card, which is to be completed with all the relevant information and returned to the local **smartkat** importer. Remaining warranty is transferable to sub-sequent owners.

All components or parts replaced or repaired under warranty will receive the remaining warranty of the original part or component. The warranty period is the minimum period which is indicated by applicable nondiscretionary legislation, if such exists. In the event that such legislation does not exist or prescribes a period shorter than the following, the warranty period will be as stated below. Constructive parts, equipment and accessories:

24 months conditional on the use of the products for the private use and recreation of the owner, in this respect no commercial use, such as chartering or renting is permissible.

To warrantee submitted hulls, sails, centreboard and rudder will be checked in any case for excessive, false and not the intended purpose appropriate demand before a warranty can be taken up by the buyer.

The warranty covers the cost of replacing defective parts or of having such parts repaired or of obtaining equi-valent parts whichever is the lowest. A defective part or product in the sense of this warranty is a part or product that is found to have an inherent defect which exists in it at the time of delivery. (Transport costs for the replacement of defective parts overseas – outside continental Europe – are not part of this warranty).

All warranty repairs must be carried out by an authorized **smartkat** importer or dealer during the normal working hours. This applies abroad as well.

This warranty does not cover parts or products damaged during transportation, installation or repair or through abnormal use, overload, carelessness, insufficient maintenance, normal wear, use of spare parts other than **smartkat** parts, or through any type of incorrect installation, abuse, misuse, accident or through neglect or failure to follow instructions in the user manual, maintenance instructions, or installation instructions. The warranty is void if the user has taken abnormal risks or modifications have been performed which in the judgement of **smartkat** have caused or enhanced the damage or if the part or product has been used in violation of the law or for a clearly unintended purpose.

The warranty does not refer to damage to the construction, the hulls and/or sails as a result of their combination with engines, or other products not approved by **smartkat**.

The warranty does not cover any incidental, consequential or related costs such as costs for travelling, transport, extra costs due to the installation in making the products accessible, docking and cranes, loss of use, loss of income, loss of time, loss of property, personal injury, or damages on other parts or goods than the indicated products delivered by **smartkat**.

smartkat does not authorize anyone to assume for it any other responsibility in connection with the sales of products than expressly described in this warranty information.

As **smartkat** does not have any control over the installation, erection or use of its products, we recommend the buyer to check and ensure that the product is installed/erected correctly, and carry out a test of the complete erected **smartkat** before taking it into use. The correct installation/erection is an absolute condition for the validity of the limited warranty.

Before leaving the factory all products are thoroughly tested.

OBLIGATIONS OF THE OWNER

As owner of the **smartkat**, the operation, maintenance and care of your **smartkat** in accordance with the instructions and requirements listed in your user manual and this warranty and service information are your responsibility.

As owner of the **smartkat** or one or more accessories it is your responsibility to report any defect in the indicated product in writing to a **smartkat** importer, or dealer. Such a report must be made as soon as possible and no later than fourteen (14) days from the date when the user first observed the defect or ought to have observed it and consequently in no case later than fourteen (14) days after the warranty period expired. The report must include at least a brief description of the defect.
The owner is recommended to secure some evidence of the date when the report was made, for example a copy of the letter.
The owner must establish the eligibility of the warranty by showing any necessary documentation.

Technical and measurement changes as well as misprints in graphic or writing reserved.

smartkat®
··· pump it up ···

WARRANTY CARD

name and address of the owner:

.....

.....

.....

telephone:

.....

Fax:

.....

mail:

.....

construction no.:

.....

date of purchase:

.....

dealer stamp and signature:
date of delivery check

.....

signature of the technician:

.....

경남 거제시 용소1길 85, (현진에버빌 105-1003)
Phone : 070-8880-7964, Fax : 055-682-5258
info@smartkat.kr, **www.smartkat.kr**

smartkat

CE

KONFORMITÄTSERKLÄRUNG
CERTIFICATE OF CONFORMITY

Richtlinie / Directive 94/25/EG

Hersteller: **Producer:**	**SMARTKAT Bootsbau- und Vertriebs GmbH** **Hochstrasse 36** **A - 4400 Steyr** **Österreich**	
CE - zertifiziert nach modul CE - certified in acc. to module	**A**	
Schiffskörperidentifikationsnummer(HIN) hull identification number:	**AT-SMA AB 999 D807**	
modellbezeichung modeldescription	**Sportboot SMARTKAT**	
type oder baunummer type or construction number	**PERFORMANCE**	
kategorie category	**D - geschützte Gewässer**	**C - küstennahe Gewässer**
nutzlast loading capacity	**320 kg / 705,6 lbs**	**140 kg / 308,7 lbs**
max. personenanzahl maximum persons	**4**	**2**
typen code type codes	**Typ: 01und 02** **Rumpftyp / type of hull: 02** **Baumaterial / construction material: 01 und 02** **Antrieb / drive: 01;02 und 04** **Motor / engine: 01** **Deck/ deck: 03**	
eigengewicht net weight	**42 kg / 92,6 lbs**	
segelfläche sailing area	**9,90 m^2 / 106,52 sqft**	
max. motorgewicht max. weight of engine	**20 kg / 44,1 lbs**	
max. motorleistung max. engine power	**3 PS / 2,2 kW**	
länge lenght	**4,30 m / 14,11 ft**	
breite width	**2,20 m / 6,89 ft**	

Für die Erreichung der Konformität zur Richtlinie 94/25/EG des europäischen Parlaments und des Rates (Sportboote) wurde die DIN 7872, EN ISO 6185 und EN ISO 10087 verwendet.
To achieve the conformity with the directive 94/25/EG of the European parliament and council (sport boats) the DIN 7872, EN ISO 6185 and EN ISO 10087 have been used.

Steyr, __ / __ 2008